



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1055; Directorate Identifier 2012-NE-33-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Rolls-Royce Deutschland Ltd & Co KG (RRD) BR700-710A1-10 and BR700-710A2-20 turbofan engines, and certain BR700-710C4-11 model engines. This proposed AD was prompted by RRD performing an evaluation that determined that certain high-pressure turbine (HPT) stage 1 and stage 2 discs from a specific supplier may contain steel inclusions that may cause the discs to fail before they reach their current life limits. This proposed AD would require reducing the life limits for certain HPT stage 1 and stage 2 discs. We are proposing this AD to prevent failure of the HPT stage 1 and stage 2 discs, which could result in uncontained failure of the engine and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; phone: 49 0 33-7086-1883; fax: 49 0 33-7086-3276. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800- 647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Robert Morlath, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England

Executive Park, Burlington, MA 01803; phone: 781-238-7154; fax: 781-238-7199; e-mail: robert.c.morlath@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-1055; Directorate Identifier 2012-NE-33-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2012-0166, dated

August 30, 2012 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

The results of a recent quality review of high pressure turbine (HPT) stage 1 and stage 2 discs identified potential for steel inclusions in some production scale parts. Further investigation concluded that all affected parts were manufactured by Udimet 720I and melted by a certain supplier. Subsequent evaluation concluded that the affected parts life limitation values declared in the engine Time Limits Manual cannot be supported for discs with potential steel inclusion.

This condition, if not corrected, could lead to an uncontained HPT disc failure, potentially resulting in damage to, and/or reduced control of the aeroplane.

The FAA has further determined that the risk to the engine is increased by installing an HPT stage 1 disc and an HPT stage 2 disc from the affected population, on the same engine. Therefore the FAA is prohibiting the installation of an HPT stage 1 and HPT stage 2 disc from the affected population in the same engine. You may obtain further information by examining the MCAI in the AD docket.

FAA’s Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of Germany, and is approved for operation in the United States. Pursuant to our bilateral agreement with Germany, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require reducing the life limits for certain HPT stage 1 and HPT stage 2 discs that have a serial number listed in this proposed AD.

Costs of Compliance

We estimate that this proposed AD would affect about 10 engines installed on airplanes of U.S. registry. Prorated parts life will cost about \$210,000. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$2,100,000. Our cost estimate is exclusive of possible warranty coverage.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Rolls-Royce Deutschland Ltd & Co KG (Formerly Rolls-Royce Deutschland GmbH, formerly BMW Rolls-Royce GmbH): Docket No. FAA-2012-1055; Directorate Identifier 2012-NE-33-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected Airworthiness Directives (ADs)

None.

(c) Applicability

This AD applies to the following Rolls-Royce Deutschland Ltd & Co KG (RRD) turbofan engines that have any of the high-pressure turbine (HPT) stage 1 or stage 2 discs with a serial number (S/N) listed in Table 1 to paragraph (c) of this AD, installed:

- (1) RRD BR700-710A1-10 and BR700-710A2-20 turbofan engines; and
- (2) BR700-710C4-11 model engines that have hardware configuration standard

710C4-11 or 710C4-11/10 engraved on the engine data plate.

Table 1 to paragraph (c) – Affected HPT Stage 1 and Stage 2 Discs

S/Ns of HPT Stage 1 Discs, Part Number (P/N) BRR23952	S/Ns of HPT Stage 2 Discs, P/N BRR22008
LDRQA05719	LDRQA05791
LDRQA05720	LDRQA05944
LDRQA05721	LDRQA05945
LDRQA05722	
LDRQA05723	
LDRQA05724	
LDRQA05726	
LDRQA05727	
LDRQA05841	
LDRQA05842	

(d) Reason

This AD was prompted by RRD performing an evaluation that determined that certain HPT stage 1 and stage 2 discs from a specific supplier may contain steel inclusions that may cause the discs to fail before they reach their current life limits. We are issuing this AD to prevent failure of the HPT stage 1 and stage 2 discs, which could result in uncontained failure of the engine and damage to the airplane.

(e) Actions and Compliance

Unless already done, remove from service the HPT stage 1 and stage 2 discs listed by S/N in Table 1 to paragraph (c) of this AD, at the following:

(1) For BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 engine models (without RRD Mod 72-101466), remove the HPT stage 1 and stage 2 discs from service before accumulating 3,000 cycles-since-new (CSN).

(2) For the BR700-710C4-11 engine model (with RRD Mod 72-101466), remove the HPT stage 1 and stage 2 discs from service before accumulating 2,300 CSN.

(f) Installation Prohibition

After the effective date of this AD, do not install an HPT stage 1 and an HPT stage 2 disc, identified by S/N in Table 1 to paragraph (c) of this AD, in the same engine.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(h) Related Information

(1) For more information about this AD, contact Robert Morlath, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New

England Executive Park, Burlington, MA 01803; phone: 781-238-7154; fax: 781-238-7199; e-mail: robert.c.morlath@faa.gov.

(2) Refer to European Aviation Safety Agency Airworthiness Directive 2012-0166, dated August 30, 2012, and Rolls-Royce Deutschland Ltd & Co KG Alert Service Bulletin SB-BR700-72-A900508, dated July 26, 2012, for related information. Contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; phone: 49 0 33-7086-1883; fax: 49 0 33-7086-3276, for a copy of this service information.

(3) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on November 5, 2012.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2012-27824 Filed 11/15/2012 at 8:45 am; Publication Date: 11/16/2012]